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Dear Professor Lotti,

We read with interest the review by Queirós and colleagues[1] on the wide range of uses of photodynamic therapy (PDT) in dermatology. The authors appear to have overlooked the use of laser-assisted drug delivery and microneedling for enhancing penetration of photosensitising agents during PDT.[2] The treatment of actinic keratoses with ablative fractional laser technologies (AFXL) prior to PDT allows for greater penetration and hence efficacy of treatments with photosensitisers including methyl aminolevulinate (MAL) and aminolevulinic acid.[3] Combinations of microneedling, photodynamic therapy and MAL was used effectively in the treatment of recalcitrant actinic keratosis.[4] Erbium-doped yttrium aluminium garnet AFXL undertaken before MAL-PDT was more efficacious for the treatment of Bowen's disease than a MAL-PDT alone.[5] In addition, AFXL pre-treatment prior to PDT in the treatment of basal cell carcinomas is thought to create channels to allow greater penetration of the active photosensitising agent.[2] The potential utility of AFXL-assisted PDT in patients with actinic cheilitis has been highlighted in a large cohort of patients.[6] Practitioners undertaking PDT should consider the addition of pre-

treatment interventions such as AFXL and microneedling to enhance the delivery of photosensitising agents and improve patient outcomes.

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